BUSHMASTER® ACR®
OPERATING AND SAFETY MANUAL

BUSHMASTER
FIREARMS

TABLE OF CONTENTS

PAGE	
1	Warnings/Cautions/Safe Handling
2	Dangerous Procedures
3	About Your Bushmaster Firearm
4-5	Firearm Features & Controls – Identification/Location
6	Clearing Your Firearm
7	Preventative Maintenance Checks
8	Safety Function Check
9	Preparing to Fire/Loading a Magazine
10	Operation of Your Firearm/Loading
10	Operation/Inserting a Magazine
11	Operation/Chambering from Open Bolt
12-13	Operation/Chambering from Closed Bolt
14	Operation/Stock Adjustments
15	Immediate Actions - In Case of Trouble
16	Remedial Actions
17	Bullet Stuck in the Bore
18	Back Up Sights

PAGE	
19	Zeroing Your Sights
19	25 Meter Zeroing Procedures
20	Front & Rear Sight Adjustment
21-25	Disassembling Your Firearm
26	Inspection/Cleaning/Lubrication
27-28	Detailed Cleaning Techniques
29	Cleaning the Upper Receiver
29	Cleaning the Bolt & Carrier
30	Cleaning /Lubricating the Ejector
31	Cleaning the Lower Receiver
31-35	Reassembling Your Firearm
36-37	Magazine Disassembly/Reassembly
38-42	Re-Configuring Firearm
43-47	Problems/Solutions
48	Maintenance in Extreme Weather
49	Parts and Accessories
50-51	Component Variations
52-54	Warranty

BUSHMASTER FIREARMS

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PLEASE PRACTICE SAFE FIREARMS HANDLING!

⚠ ***WARNING:*** ***IF THIS FIREARM IS CARELESSLY OR IMPROPERLY HANDLED, UNINTENTIONAL DISCHARGE COULD RESULT AND COULD CAUSE INJURY, DEATH, OR DAMAGE TO PROPERTY.***

⚠ ***CAUTION:*** ***CAREFULLY READ THIS INSTRUCTION MANUAL PRIOR TO LOADING AND FIRING THIS FIREARM. FOLLOW ALL INSTRUCTIONS ON THE PROPER HANDLING AND SAFE USE OF THIS FIREARM - LIVES MAY DEPEND ON IT!***

⚠ ***CAUTION:*** ***USE ONLY CLEAN, DRY, HIGH QUALITY COMMERCIALLY MANUFACTURED AMMUNITION IN GOOD CONDITION*** which is appropriate to the 5.56mm NATO/223 Remington or 6.8mm Remington SPC caliber of your Firearm. Bushmaster does not recommend the use of remanufactured or hand loaded ammunition because it may damage your rifle and/or cause your firearm to malfunction.

⚠ ***WARNING:*** ***THIS FIREARM COULD CHAMBER A ROUND*** if it is dropped or jarred with a loaded magazine in place - either with the Bolt Carrier Assembly locked to the rear, or in its forward position.

FUNDAMENTAL RULES FOR SAFE GUN HANDLING

- ***ALWAYS KEEP THE FIREARM POINTED IN A SAFE DIRECTION.***
- ***NEVER LOAD THE FIREARM UNTIL READY TO USE.***
- ***KEEP YOUR FINGER OFF THE TRIGGER UNTIL READY TO SHOOT.***

WARNING: BEWARE OF DANGEROUS PROCEDURES

- Be sure Cam Pin is installed in the Bolt Group. If it isn't, your Firearm can still fire and ***COULD MALFUNCTION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH***.
- When using a ***Blank Firing Attachment, NEVER FIRE ANYTHING EXCEPT BLANKS!*** For your safety, we recommend the visible, military style blank firing attachment (BFI Part# RAY-008).
- If your firearm stops firing with a live round in the chamber of a hot barrel (a misfire), ***REMOVE THE ROUND FAST!*** However, if you cannot remove it within 10 seconds, remove magazine and wait 15 minutes ***with the Firearm pointing in a SAFE DIRECTION!*** This way you won't be hurt by a possible round "cooking-off" (i.e. the round detonating just from the heat of the barrel). Keep your face away from the ejection port while clearing a hot chamber.
- If your bolt fails to unlock, and you try to free it by tapping the buttstock on the ground while pulling on the charging handle, ***keep yourself clear of the Muzzle and the Firearm pointed down range.***
- If there is water in the barrel, do not fire the rifle. ***IT COULD MALFUNCTION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH***.
- Pull the charging handle to the rear to break the seal to ensure the water will run off from the chamber through the ejection port area.
- If a noticeable difference in sound or recoil is experienced, ***STOP FIRING!*** Either condition could indicate an incomplete powder burn and/or a bullet or other obstruction stuck in the bore.
- Take the Firearm to a qualified gunsmith and have obstructions removed.
- ***NOTE:*** With the Bolt Carrier Assembly locked to the rear, or in its forward position, if the Firearm is dropped or jarred with a loaded magazine in place, a live round could be chambered.

ALWAYS PRACTICE SAFE FIREARMS HANDLING!

ABOUT YOUR BUSHMASTER RIFLE...

This Operating Manual covers the ***Bushmaster ACR*** ("ACR") which is chambered in 5.56mm NATO/223 Remington and 6.8mm Remington SPC ammunition. It is a gas piston, air-cooled shoulder fired, magazine-fed Firearm, that is ***Semi-Automatic*** in operation (i.e., a single round will fire each time the trigger is pulled).

- The ACR Barrels are cold hammer forged and hold the tightest tolerance allowed. They are rifled with either a 1 turn in 7" for heavier grain weight bullets or 1 turn in 9" for lighter bullets with a right hand twist – 6 lands and grooves.
- The ACR is operated by a regulated, short-stroke Gas Piston System which eliminates hot gas from being introduced into the Upper and Lower Receivers. The Regulator can be set for Unsuppressed or Suppressed fire.
- The ACR is a multi-caliber platform and is capable of transitioning to a range of calibers simply by swapping the Barrel Assembly and Bolt, using the appropriate Magazine. Some calibers may require an alternate lower to accept different sized Magazines.
- All ACR Upper and Lower Receivers are easily opened for cleaning and inspection.
- The Upper Receiver is made of extruded Aluminum and the Lower Receiver is made of a proprietary composite polymer.
- Most ACR models feature fully adjustable rear sights/elevation adjustable front sights.
- The Bolt Group locks into the Barrel Extension with 7 locking lugs.
- All models can be configured with either a Fixed Stock or 7 position Telescoping/Folding Stock.
- All models feature vertical pistol grips and detachable magazines. Magazine capacity is 30 rounds standard (depending on State Regulations), but all AR-15/M-16 type magazines of capacities from 5 to 40 rounds will fit the ACR and function in it.

Firearm Features & Controls - Identification/Location...

Firearm Features & Controls - Identification/Location... *(cont'd.)*

NOTE: ***ATF Regulations require a minimum barrel length of 16" on*** commercially available rifles and carbines. This 16" length can be a combination of barrel and permanently fixed (pinned & welded over) muzzle brake/flash suppressor as long as total length equals 16".

CLEARING YOUR FIREARM...

ALWAYS FOLLOW THE RULES OF SAFE FIREARM HANDLING. First, assume the firearm you are handling is loaded, and then proceed - according to the following steps - to ***CLEAR YOUR FIREARM. . .***

1. Point Firearm in a ***SAFE DIRECTION!*** Place Safety Selector Lever on SAFE.

NOTE: If the Firearm is not cocked, the Safety Selector Lever cannot be pointed toward SAFE.

2. Press Magazine Release Button and pull Magazine down to remove.

3. To lock Bolt open, pull Charging Handle rearward. Press upward on the Bolt Catch and allow Bolt to move forward until it engages the Bolt Catch. If you haven't before, now place Safety Selector Lever on ***SAFE.***

Safety Selector Lever on ***SAFE.***

4. Visually and physically check that the Chamber is clear.

CHECK BEFORE YOU FIRE!

ALWAYS FOLLOW THE RULES OF SAFE FIREARM HANDLING.

First, assume the Firearm you are handling is loaded, and then proceed - according to the following steps - to ***CLEAR YOUR FIREARM...***

1. Check to see that there is ***NO EXCESSIVE OIL*** in the Bore. If there is, swab it out with a patch and the cleaning rod. ***ALWAYS CLEAN A NEW FIREARM BEFORE FIRING.***
   WARNING! If the Firearm is fired with oil - or water - in the barrel, excessive pressure will be created and the Firearm could malfunction causing personal injury, property damage or death.
2. Retract the Bolt to ensure free movement of the Bolt Carrier.
3. Perform Safety Function Check (next page) to ensure that Safety Selector Lever works properly.
4. Ensure the Gas Regulator is set to "U" for unsupressed fire; if firing with a silencer mounted, set Gas Regulutor to "S" for suppressed fire.

NOTE: Gas Regulator must be set correctly for either unsuppressed or suppressed fire; If not set correctly the Firearm could malfunction causing personal injury, property damage or death.

WARNING! Never operate Firearm with Gas Regulator set in between the "U" and "S" settings.

UNLOAD FIREARM - REMOVE MAGAZINE - CHECK CHAMBER

1. Remove Magazine if installed. Pull Charging Handle assembly to rear. Check that Chamber is clear. Let the Bolt and Bolt Carrier close. Do not pull Trigger. Leave Hammer in cocked position.

WARNING! If Firearm fails any of the following tests, continued use of the Firearm could cause a malfunction causing personal injury, property damage or death.

2. Place Selector Lever in ***SAFE*** position, point rifle in a safe direction, and pull the Trigger. ***THE HAMMER SHOULD NOT FALL.***
3. Place Selector Lever in ***FIRE*** position. Pull the Trigger. ***THE HAMMER SHOULD FALL.***

NOTE: For purposes of the following check, "SLOW" is defined as one fourth to one half the normal rate of trigger release.

4. Hold Trigger to the rear, pull Charging Handle to the rear and release Charging Handle. Then release pressure on the Trigger with a slow, smooth motion, without hesitations or stops, until the Trigger is fully forward.

AN AUDIBLE CLICK SHOULD BE HEARD - THE HAMMER SHOULD NOT FALL.

5. Repeat the ***FIRE*** position test ***FIVE TIMES***. The Firearm must not malfunction during any of these five tests. Pull the Charging Handle to the rear one last time and release forward.
6. Place the Selector Lever in ***SAFE*** position. Pull the Trigger. ***THE HAMMER SHOULD NOT FALL.***

If the Firearm malfunctions during any of these five tests, have the Firearm checked by a qualified gunsmith.

PREPARING TO FIRE - LOADING A MAGAZINE...

1. Use only quality 5.56mm/223 Remington Ammunition in your Firearm (or 6.8mm Remington SPC if applicable). Examine each Cartridge - particularly around the primer. Look for dents, scratches, and other signs of damage.

DO NOT LOAD DAMAGED AMMUNITION!

2. With the Magazine facing forward, as shown in the illustration, place a Round between the Feed Lips of the Magazine with the Bullet Tip forward. Push the Round down until it is held by the Magazine Feed Lips.

3. If necessary, give the Round a slight push backward to seat it against the inside back edge of the Magazine Feed Lips. Place next Round on top of the previous Round and repeat steps until desired number of Rounds are loaded into Magazine.

CAUTION! Safe Firearms Handling dictates that you ***ONLY LOAD LIVE AMMUNITION INTO YOUR RIFLE WHEN YOU ARE ABOUT TO SHOOT.***

OPERATION OF YOUR FIREARM... LOADING

CAUTION: ALWAYS POINT THE MUZZLE IN A SAFE DIRECTION!

1. With the Hammer cocked, place Selector Lever on ***SAFE.***

2. Open Bolt and check Firing Chamber. Make sure it is CLEAR!

INSERTING A MAGAZINE...

1. Return Charging Handle to forward, locked position. Push Magazine up into Magazine Well until Magazine Catch engages and holds the Magazine.

2. Slap upwards on Magazine bottom to make sure it is seated correctly.

CHAMBERING A ROUND FROM AN OPEN BOLT...

NOTE: The Magazine may be inserted into the Firearm with the Bolt Assembly Open or Closed.

1. Press the Bolt Catch downward. Bolt should spring forward. This will chamber a round from the Magazine.

2. TAP the Charging Handle forward with the heel of your hand to ensure that the Bolt is fully forward and locked.

FIREARM IS NOW READY TO BE AIMED AND FIRED!

CHAMBERING A ROUND FROM A CLOSED BOLT...

1. With a Magazine in the Firearm, pull the Charging Handle fully to Rear. Then release the Charging Handle – allowing the Bolt to spring forward – chambering the first round.

NEVER "Ride" or push the Charging Handle forward. Let it move forward on its own.

2. TAP the Charging Handle forward to ensure that the Bolt is fully forward and locked.

FIREARM IS NOW READY TO BE AIMED AND FIRED!

NOTE: If Firearm is not going to be fired immediately, make sure the Selector Lever is still on ***SAFE***.

CONDITION: Firearm is now Loaded, a Round is chambered, and Safety Selector should be on SAFE.

CAUTION: ALWAYS POINT THE MUZZLE IN A SAFE DIRECTION!

To **FIRE** the Firearm in **SEMI-AUTOMATIC MODE** (one Round fired with each pull of the Trigger), move the Safety Selector Lever from **SAFE** to **FIRE**.

Aim at Target – Pull Trigger – Release.

The Firearm will automatically eject the spent Cartridge and chamber another Round in preparation for the next shot. The cycle of pulling the Trigger to shoot, and the Firearm automatically reloading, can be continued until the Magazine is empty.

NOTE: After the last Round is fired, the Bolt Carrier will lock in the rear position. You can then push the Magazine Release Button to drop out the empty magazine, insert a fresh Magazine, release the Bolt Catch, and a new Round will be automatically chambered in preparation for the next firing sequence.

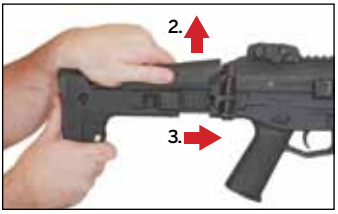
WARNING... IF A NOTICEABLE DIFFERENCE IN SOUND OR RECOIL IS EXPERIENCED, STOP FIRING AND IMMEDIATELY CHECK THE FIREARM FOR OBSTRUCTIONS. AN OBSTRUCTION MAY CAUSE A MALFUNCTION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

Either condition could indicate an incomplete powder burn and/or a bullet stuck in the bore. Retract the Bolt slowly and remove the fired cartridge case. Clear the Firearm and check for unburned powder grains in the Receiver or Bore, and for a Bullet stuck in the Bore (See Page 17). Clean out any unburned powder before resuming firing. If a Bullet is stuck in the Bore, do not attempt to remove it.
Take the Firearm to a qualified Gunsmith.

STOCK ADJUSTMENTS

1. To adjust the Cheek Piece height, slide the Cheek Piece rearward to unlock.

2. Lift Cheek Piece to the elevated position.
3. Slide Cheek Piece forward to lock into place.
4. Reverse action in order to return Cheek Piece to the lower position.



OPTIONAL – FOLDING/TELESCOPING STOCK

1. To adjust the length of pull, depress both (left and right) Stock Extension Buttons and slide stock forward or back.

2. To fold, depress the Stock Release Latch and fold the Stock forward on the right hand side.
3. To return the Stock, pull to the rear until the Stock locks into place.

NOTE: Stock is held open by detent but does not lock open.
NOTE: The Firearm can be fired with the stock in the folded position with clearance for ejecting cartridges.

IMMEDIATE ACTIONS — IN CASE OF TROUBLE!

IF YOUR FIREARM STOPS FIRING: Perform the following IMMEDIATE ACTIONS...

Remember the word "***SPORTS***"

1. ***S***lap up on the Magazine to ensure a good lock up in the Lower Receiver.
2. ***P***ull the Charging Handle all the way back and hold.
3. ***O***bserve the ejection of the Case or Cartridge, check Chamber for any obstruction.
4. ***R***elease the Charging Handle and let the Bolt spring forward.
5. ***T***ap the Charging Handle to assist the Bolt forward to ensure the Bolt is locked.
6. ***S***queeze the trigger to fire.

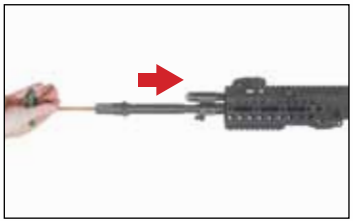
REMEDIAL ACTIONS...

WARNING: IF YOUR FIREARM STOPS FIRING WITH A LIVE ROUND IN THE CHAMBER OF A HOT BARREL, REMOVE THE ROUND IMMEDIATELY. However, if you cannot remove it within 10 seconds, remove the Magazine and wait 15 minutes with the Firearm pointing in a safe direction (always check that the "SAFE" direction remains safe during that time). This way you and those around you won't get hurt by the possibility of a round "cooking off".

KEEP YOUR FACE AWAY FROM THE EJECTION PORT WHILE CLEARING A HOT CHAMBER.

1. If your Firearm still fails to fire after performing Immediate Action Steps 1 through 5 on previous page, check again for a jammed cartridge case.

2. If a cartridge case is in the chamber, open the receivers, remove the bolt carrier, and try to tap out the case with a cleaning rod.



IF FIREARM STILL FAILS TO FIRE CHECK THE TROUBLESHOOTING SECTION IN THIS MANUAL OR TAKE THE FIREARM TO A QUALIFIED GUNSMITH.

BULLET STUCK IN THE BORE...

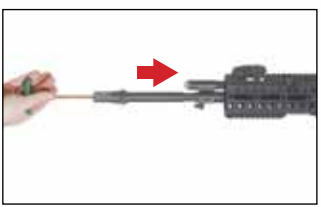
WARNING: IF AN AUDIBLE "POP" OR REDUCED RECOIL IS EXPERIENCED DURING FIRING, IMMEDIATELY CEASE FIRE: Then,

1. Remove the Magazine.

2. Lock the Bolt to the rear.

3. Place the Selector Lever on SAFE.

4. Visually inspect and/or insert a Cleaning Rod into the Bore to ensure there is not a Bullet stuck in the Bore.



DO NOT APPLY THE "IMMEDIATE ACTIONS" DESCRIBED ON PREVIOUS PAGES.
IF A BULLET IS STUCK IN THE BARREL OF THE FIREARM, DO NOT TRY TO REMOVE IT. TAKE THE FIREARM TO A QUALIFIED GUNSMITH.

BACK UP SIGHTS

The Front Sight Post is threaded - allowing it to be moved up or down for Elevation Adjustments when "Zeroing" the Rear Sight (see "Zeroing Your Sights" on next page). Once the Rear Sight is Zeroed, the Front Sight Post should not be moved.

REAR BACK UP SIGHT

The Rear Back Up Sight features two apertures and when not used can be folded down flat. To return to the up position press either the side tabs.

NORMAL RANGE APERTURE:
The smaller Aperture is the default setting and is used for most firing situations, optimized for 100-300 meters.

SHORT RANGE APERTURE: Rotate the Normal Range Aperture forward and down to reveal the Short Range Aperture. This aperture is used for ranges of 0 - 100 meters, allowing a larger field of view.

When not in use the Front and Rear Sights can be folded down flat. To return elevate sights press down either the side tabs or down on the forward portion of either sight to engage the spring loaded release. To remove the sights, loosen and remove the Locking Bolt and guide the sights forward off the end of the MIL-STD-1913 Picatinny Top Rail.

ZEROING YOUR SIGHTS...

Follow the steps below to establish a Zero at 25 meters. Your MBUS Type Rifle Sights will then be set with a 300-meter battlesight zero. With this procedure, only the Front Sight Post and Rear Sight Windage Knob are adjusted so that you can hit your Point of Aim at 300 meters.

25 METER ZEROING PROCEDURES...

1. Place an appropriate 25 Meter Paper Sighting Target 25 meters downrange and follow the steps below to establish a "battlesight" zero. Do not move the Front Sight Post at this time. It was set at the factory and should be very close to "Zero".

(Bushmaster Sighting-In Targets, Part# QP-015K - see Bushmaster Catalog or Website)

2. The smaller (unmarked) Rear Sight Aperture should be in the UP position. Center the Rear Sight by turning the Windage Knob left or right. This creates what is called "Mechanical Zero Windage".

3. Check that your field of fire is clear, and that it is safe to shoot. Carefully aim and fire a group of three shots at the center of the target bullseye.

4. Inspect your target - if your shot group is not in the center of the bullseye, the squares on the target sheet will help you calculate the required "clicks" necessary to move your next shot group toward the bullseye.

(Remember! - any changes in elevation are to be made by moving the front sight post)

5. If you need to raise your next shot group to get closer to the bullseye, rotate the Front Sight Post clockwise one click. A Front Sight Adjustment Tool (Part# RAY-005 - see Bushmaster Catalog or Website) is recommended for this but not necessary – the sight can be adjusted with the tip of a Bullet as shown at right. One click will move the bullet strike point one vertical square on the target sheet.

Elevation Adjustment Table

a. Sight Radius: 14.1 in.

b. Bullet Strike Adjustment:

Impact	*Distance*
0.485 in./click	25m
1.939 in./click	100m
5.817 in./click	300m

6. If you need to lower your next shot group, rotate the Front Sight Post counterclockwise. (One click - as before – equals one square.) Changes in Windage are made with the Windage Knob on the Rear Sight. To move the shot group to the left, turn the Windage Knob counter-clockwise. To move the shot group to the right, turn the Windage Knob clockwise

Windage Adjustment Table

a. Sight Radius: 14.1 in.

b. Bullet Strike Adjustment:

Impact	*Distance*
0.323 in./click	25m
1.293 in./click	100m
3.878 in./click	300m

7. Carefully aim and fire another group at the center of the target bullseye. Repeat Steps 5 and 6 as required to get your shot groups into the bullseye.

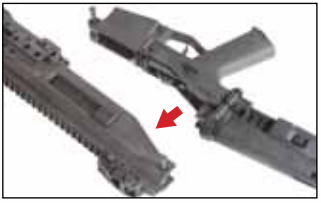
8. Once your shot group is on target, your Sights are zeroed, or "calibrated".

DISASSEMBLING YOUR FIREARM...

1. CLEAR YOUR FIREARM! (as described on Page 6). Disconnect the Sling for convenience.
2. Push the Rear Takedown Pin (a Bullet Tip can help) as far as it will go. Pivot Upper Receiver from Lower Receiver.

3. Push in Pivot Pin (a Bullet Tip can help).

4. Separate Upper and Lower Receivers.



5. Push the Charging Handle fully forward to disconnect the Actuator from the Bolt Carrier. Remove Bolt Carrier to the rear.

NOTE: Pivot Pin in the Lower Receiver and Takedown Pin in the Upper Receiver are "captivated" - meaning that they are held in by their Detents and Springs so they cannot fall out and get lost.

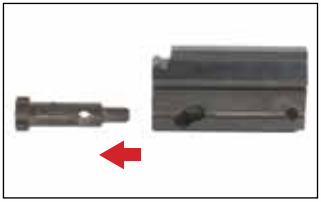
6. Remove the Action Spring Assembly from the Bolt Carrier by pressing inward (toward front of the Bolt) and twisting counter-clockwise until the slots on the carrier are in-line with the prongs on the front of the Action Spring Assembly Guide and then remove the Action Spring Assembly.

7. Remove Firing Pin Retaining Pin. A Bullet Tip can help push it out of the Bolt Carrier.

8. Remove Firing Pin and Firing Pin Spring out of rear of Bolt Carrier.

9. Remove Cam Pin by turning Bolt Carrier on the side and tapping opposite side of Bolt Carrier. Cam Pin should fall out.

10. Remove Bolt Assembly from Bolt Carrier by pulling straight out.



DISASSEMBLE USING STEPS 11 AND 12 ONLY WHEN DIRTY OR DAMAGED

11. Remove Extractor Pin by pushing out with a punch or the tip of a Bullet.

12. Remove Extractor with Spring.

NOTE: Press rear of Extractor to check Spring function.
CAUTION: Extractor Spring may pop out and get lost!

REMOVING THE BARREL ASSEMBLY

1. Pull Charging Handle and lock to the rear.

2. Remove Hand Guard by pushing the Hand Guard Retaining Pin through as far as it will go and slide the Hand Guard forward.

3. Lower the Barrel Locking Lever and depress the Barrel Plunger.

4. With the Barrel Plunger depressed, turn the Barrel Locking Lever. counter-clockwise until it stops.

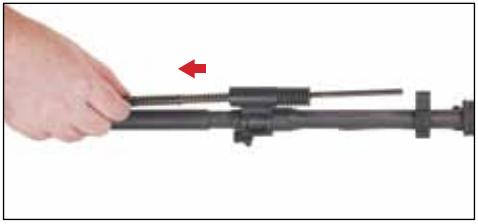
5. Pull the Barrel Assembly forward until it releases from the Trunnion.

DISASSEMBLING THE GAS PISTON SYSTEM

1. Depress Regulator Plunger and rotate until it is facing toward the barrel.

2. Pull Gas Regulator straight out to remove.

3. Remove Piston Rod and Piston Spring through the front of the Gas Block.



NOTE: The Gas Piston System can be disassembled with the Barrel attached or removed from the Upper Receiver.

STOP

BUSHMASTER DOES NOT RECOMMEND ANY FURTHER DISASSEMBLY. ANY FURTHER DISASSEMBLY MUST BE PERFORMED BY A QUALIFIED GUNSMITH.

INSPECTION — CLEANING — LUBRICATION...

AFTER FIRING YOUR FIREARM, clean it as soon as possible to make the job easier and to avoid allowing the development of any corrosion.
When your Firearm has not been fired you should clean it at least once or twice a year if you live in a temperate climate, or as often as once a week in a tropical climate.

If you get your Firearm wet, clean it as soon as possible to avoid the onset of corrosion or rust.

Use a high quality Firearm cleaning kit that includes a cleaning rod; swab holder; cotton flannel bore patches; pipe cleaners; a small toothbrush; brass wire bristle bore and chamber brushes and a Cleaner/Lubricant/Preservative (CLP in Army terminology).

After you have disassembled the Firearm, thoroughly clean, inspect and lubricate all parts according to the techniques described on following pages.

Cleaning Kit with Patch Holder, Bore & Chamber Brushes

A Quality Gun Oil, Cleaner and Preservative

Cotton Flannel Bore Patches

PLUS, an old toothbrush for cleaning parts and dislodging dirt build-up, and pipe cleaners or Q-tips for cleaning hard to reach areas.

THE BUSHMASTER ACR IS DESIGNED TO OPERATE WITHOUT LUBRICATION AND AFTER CLEANING, ALL ACTION PARTS SHOULD BE WIPED DRY.

DETAILED CLEANING TECHNIQUES...

NOTE: The procedures below describe cleaning with a standard military issue type multi-piece rod cleaning kit. Other commercial cleaning kits may include alternate cleaning instructions which may be just as effective.

CLEANING THE BORE: The bore of your ACR rifle has Lands and Grooves called rifling. Rifling makes the bullet spin very fast as it moves down the Bore and down range. It is difficult to ***push*** a new, stiff Bore Brush through the Bore. You will find it much easier, and more effective, to ***pull your Bore Brush through the Bore***. Also, because the brush will clean better if the bristles follow the grooves (this is called tracking), you want the Bore Brush to be allowed to turn as you pull it through.

To make cleaning the Bore easier, you may remove the barrel from the Upper and replace once the Bore and Chamber are cleaned. The zero of the barrel will not be lost.

ALWAYS CLEAN FROM THE CHAMBER TOWARD THE MUZZLE. Follow these steps:

1. Attach three Rod Sections together but leave each one about two turns short of being tight. Attach the Patch Holder but leave it two turns short of tight also.

2. Point Muzzle down. Hold the Upper Receiver or Barrel Assembly in one hand while inserting the end of the Rod with Patch Holder attached into the Chamber. Guide the Rod carefully through the Bore.

CAUTION: Do not let the Rod or its threaded end scratch the Lining of the Bore or Firing Chamber. About 2 - 3 inches of the Rod should protrude out of the Muzzle.

3. Attach the Handle Section of the Cleaning Rod to the end of the Rod sticking out of the Muzzle, and swab out the Bore with a patch moistened with “CLP”.

4. Remove Patch Holder and attach Bore Brush (leaving it two turns short of tight).
5. Pull the Brush through the Bore and out the Muzzle. You should be able to see the Rod twisting as you pull it - this is the Brush "tracking" in the rifling.

NEVER reverse the direction of the Bore Brush while it is in the Bore.

6. After one pull, take off the handle section and repeat the process. After three or four pulls, the three rod sections and the Bore Brush may become screwed tightly together. Loosen them up and repeat the process.
7. Send a patch through the Bore occasionally to help clean out the crud that the brush is getting loose. Just replace the Bore Brush with the Rod Tip (Patch Holder) and a wet patch. Pull it through. If you leave the rods loose again, the patch will "track" in the rifling as before. But remember, always have the Bore ***wet with cleaner*** before trying to pull a brush through.

CLEANING THE GAS REGULATOR AND PISTON SYSTEM:

1. Use Chamber Brush soaked with CLP to clean the inside of the Gas Block.
2. Remove carbon and clean top of barrel just forward of the Gas Block where hot gas is ported out of the Gas Regulator.
3. Wipe down Piston Rod and Piston Spring.
4. Lubricate all parts and wipe dry.

CLEANING THE UPPER RECEIVER...

1. Using a "CLP" type product, clean all areas (inside and out) of Powder Fouling, Corrosion and Dirt.

Never use a wire brush or any type of abrasive to clean the Aluminum Upper Receiver or Bearing Rails - you'll scratch and damage the finish. A Toothbrush is good for loosening any dirt buildup, and won't scratch the Receiver.

2. Wipe all components clean and dry, and inspect for excessive wear, corrosion or mechanical damage. Have a qualified Gunsmith replace any worn or defective parts before firing again (or contact Bushmaster at 1-800-998-7928 for parts needs.)

CLEANING THE BOLT, BOLT CARRIER & COMPONENTS...

1. Clean and inspect Bolt, Cam Pin, Firing Pin, Firing Pin Spring, Firing Pin Retaining Pin and Action Spring Assembly thoroughly.

CHECK THE BOLT: Look for cracks or fractures, especially in the Cam Pin hole area. Inspect Bolt Face - Bolts with any pitting extending into the firing pin hole should be replaced.

CHECK THE CAM PIN: If it is cracked, or chipped, it should be replaced. NOTE: Cam Pin can only be installed in Bolt from one side - so Ejector will be positioned correctly.

CHECK THE FIRING PIN: If it is bent, cracked, too blunted or too sharp, it should be replaced.

CHECK THE FIRING PIN RETAINING PIN: If it is bent, or badly worn, it should be replaced. If O-ring is broken, worn or missing it should be replaced, though the Firearm will still function safely.

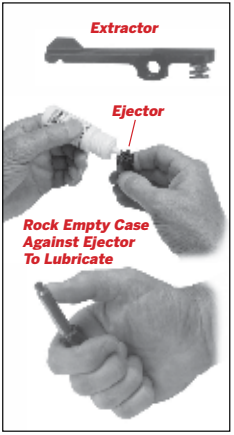
WIPE ALL PARTS DRY BEFORE REASSEMBLING BOLT CARRIER. WARNING: IF THE CAM PIN IS MISSING, DO NOT FIRE THE FIREARM – IT COULD MALFUNCTION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

CLEANING THE BOLT, BOLT CARRIER & COMPONENTS...

CHECK THE EXTRACTOR AND EXTRACTOR SPRING: If the Extractor is chipped, or has broken edges in the area of the lip that engages the cartridge rim, it should be replaced. Check that the rubber insert is inside the Extractor Spring. Clean off any Carbon buildup or powder residue.

CLEANING/LUBRICATING THE EJECTOR...

NOTE: The design of the Ejector makes its disassembly for cleaning somewhat impractical (i.e. we don't recommend it). Make sure your Bushmaster ejects empty cases efficiently by following these steps on a monthly basis (more frequently if firing blanks).



1. With the Bolt removed from the Bolt Carrier and the Extractor installed, hold it as shown, and dribble a few drops of CLP around the Ejector to form a puddle.

2. Take a fired or dummy case and place it under the lip of the Extractor. With a rocking motion, press the case down against the Ejector. Since the Ejector is spring loaded, some resistance will be felt. Press on the case until it stops against the bolt face. Ease off with your thumb slightly and press down again. Repeat several times. Replace the CLP frequently. Once the spring action of the Ejector is smooth and strong, dry off any excess lubricant.

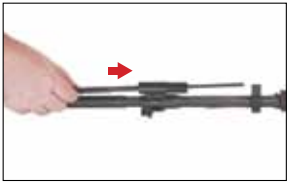
CLEANING THE LOWER RECEIVER...

1. Clean all areas of Powder Fouling, Corrosion, Dirt and Rust. Again, never use a wire brush or any type of abrasive to clean the proprietary composite polymer Lower Receiver.

2. Stocks may require cleaning as necessary and should be cleaned with mild detergent and water. Dry stock or let air dry after it has been cleaned.

REASSEMBLING YOUR FIREARM...

1. Insert Piston Rod and Piston Spring through Gas Block and Piston Rod through Guide Block.



2. Insert Gas Regulator and rotate to either "U" or "S"

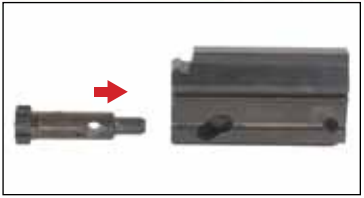
3. Attach the Barrel Assembly by guiding the Barrel Extension into the Trunnion. The piston will pass through an opening in the Trunnion.

4. Guide the Barrel Lock Handle to the right until it engages with the Trunnion. Once seated into the Trunnion, turn the barrel locking lever clockwise until there is a positive stop (you may have to depress the Barrel Plunger to start rotation). The Barrel Locking Ring will make audible clicks as the torque is being applied for proper installation.

5. Install Hand Guard over the Barrel Assembly and push Hand Guard Retaining Pin closed to lock into place.

6. Insert Bolt into Bolt Carrier. Twist into position so Cam Pin can be inserted (remember Cam Pin can only be installed in Bolt from one side, so if it doesn't fit right away, twist the Bolt 180° and try again).

7. Once Cam Pin is inserted, align the ridge on the head of the Cam Pin so it is parallel with the Bolt.



WARNING: THE CAM PIN MUST BE INSTALLED IN THE BOLT GROUP. IF IT ISN'T, YOUR FIREARM CAN STILL FIRE AND COULD MALFUNCTION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

8. Insert Firing Pin into Firing Pin Spring; Drop in and seat Firing Pin and Spring into Bolt Carrier.

9. Lightly press the Firing Pin into the Bolt Carrier; while holding, insert Firing Pin Retaining Pin.

10. Insert Action Spring Assembly into the Bolt Carrier by pressing inward (toward front of the Bolt) and twisting clockwise until the tabs on the front of the Action Spring Assembly Guide are in line with the Retaining Slot.

NOTE: The Recoil Lug at the back of the Action Spring Assembly should be pointing up toward the top of the Upper Receiver.

NOTE: After inserting Firing Pin Retaining Pin, Firing Pin should not fall out when Bolt Carrier Assembly is turned upside down

CAUTION: BUSHMASTER DOES NOT RECOMMEND THE PRACTICE OF SWAPPING BOLTS BETWEEN DIFFERENT FIREARMS. DOING SO COULD RESULT IN MALFUNCTION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

11. Insert Bolt Carrier assembly into the Upper by aligning the notches on the Carrier with the Bearing Rails inside the Upper. Move forward until the locking lugs engage the Trunnion.
12. To join Upper and Lower Receivers, position Pivot Pin Lug of Upper Receiver into slot at front of Lower Receiver and push Pivot Pin into place.

CAUTION: Always place the Safety Selector Lever on ***SAFE*** before pivoting the Upper Receiver to a closed position on the Lower Receiver.

13. After Receivers are closed, push in Takedown Pin.
14. To ensure proper reassembly, perform the safety function check (See page 8) prior to any attempt to fire the Rifle.

SLING REATTACHMENT...

If the Sling, or any other Accessories were removed for cleaning or maintenance, they should be reattached now.

MAGAZINE DISASSEMBLY/REASSEMBLY

1. Unload Magazine fully.
2. Turn Magazine base up. Push down and forward on Floorplate with a bullet head or other appropriate device.

CAUTION: **Floorplate is under pressure, so ensure care upon removal. Always wear eye protection.**

3. Pull gently on Magazine Spring and Follower to separate from Magazine body.

4. Wipe dirt from Body, Magazine Spring and Follower; then lightly lubricate Spring.

5. Orient Follower and Magazine Spring to Magazine Body and carefully insert through bottom of Magazine Body.

6. Slide Floorplate over lip on bottom of Magazine Body and continue sliding Floorplate over tabs until rear of Floorplate catches on Magazine Body.

STOCK CHANGE

1. Push the Rear Takedown Pin (a Bullet tip can help) as far as it will go. Pivot Upper Receiver from Lower Receiver.

2. Push the Stock Retaining Pin out.

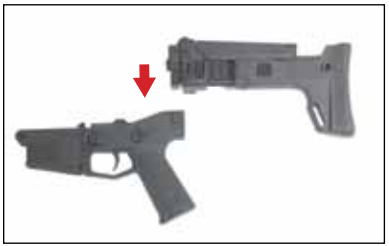
3. Slide stock upward to separate from lower receiver.

STOCK CHANGE

4. Replace or insert new stock downward into cavity.

5. Push Stock Retaining Pin closed.

6. Pivot Upper Receiver and Lower Receiver together and push Rear Takedown Pin closed.



HAND GUARD CHANGE

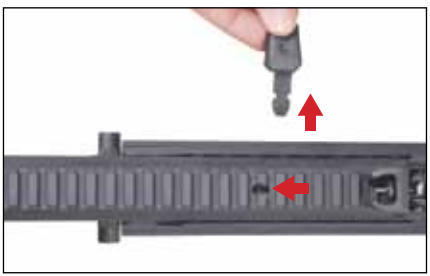
1. Remove Hand Guard by pushing the Hand Guard Retaining Pin through as far as it will go and slide the Hand Guard forward.

2. Install alternate Hand Guard over the Barrel Assembly and push Hand Guard Retaining Pin closed to lock into place.

CHARGING HANDLE

1. Locate Charging Handle Release Button.

2. While using a punch or bullet tip, depress Release Button and slide to the rear while pulling the Charging Handle away from the Upper Receiver.



CHARGING HANDLE

3. Still holding the Release Button to the rear, swap Charging Handle to the opposite side and re-insert or insert alternate Charging Handle.

CALIBER CONVERSION

1. Remove Magazine.

2. Unload and clear Firearm.

3. Remove Hand Guard by pushing the Hand Guard Retaining Pin through as far as it will go and slide the Hand Guard forward.

4. Lower the Barrel Locking Lever and depress the Barrel Plunger.

5. With the Barrel Plunger depressed, turn the Barrel Locking Lever counter-clockwise until it stops.

6. Pull the Barrel Assembly forward until it releases from the Trunnion.

CALIBER CONVERSION

7. Remove the Bolt Carrier and disassemble (See page 22).
8. Select proper bolt head for caliber Firearm is being converted to.
9. Install Bolt into Bolt Carrier.
10. Reassemble Bolt Carrier.
11. Ensure Bolt Carrier is removed from action or is locked to the rear.
12. Select the proper barrel for the caliber rifle is being converted to.
13. Guide the Barrel Extension into the Trunnion. The piston will pass through an opening in the Trunnion.
14. Guide the Barrel Lock Handle to the right until it engages with the Trunnion. Once seated into the Trunnion, turn the barrel locking lever clockwise until there is a positive stop (you may have to depress the Barrel Plunger to start rotation). The Barrel Locking Ring will make audible clicks as the torque is being applied for proper installation.
15. Install Hand Guard over the Barrel Assembly and push Hand Guard Retaining Pin closed to lock into place.
16. Insert Bolt Carrier into the Upper by aligning the notches on the Bolt Carrier with the Bearing Rails inside the Upper. Move forward until the Locking Lugs engage the Barrel Extension.
17. Select the proper Magazine and follow instructions for operating the Firearm (See page 10).

PROBLEM: FIREARM WON'T FIRE

Problem:	Check For:	What To Do:
Firearm won't fire	Selector Lever on ***SAFE***	Put it on ***FIRE***
	Improper Assembly Firing Pin	Assemble Correctly - ***Retaining Pin Goes In Back Of Large Shoulder On Firing Pin***
	Correct Barrel Installation	Remove and Re-Attach
	Bolt Not Locked In Chamber	Tap Forward Assist
	Too Much Oil In Firing Pin Recess	Wipe Out With Pipe Cleaner
	Defective Ammunition	Remove and Discard
	Too Much Carbon On Firing Pin Or In Firing Pin Recess	Clean

PROBLEM: BOLT WON'T UNLOCK

Problem:	Check For:	What To Do:
Bolt won't unlock	Dirty or Burred Bolt	Clean, or See Qualified Gunsmith
	Barrel not properly installed	Remove and re-attach
	Cam Pin Not Installed	Install Cam Pin

PROBLEM: WON'T EXTRACT

Problem:	Check For:	What To Do:
Won't extract	Broken Extractor Spring	See Qualified Gunsmith
	Dirty Or Corroded Ammo	Remove Stuck Round Push Out With Cleaning Rod
	Carbon In Chamber	Clean Chamber
	Fouling Or Carbon In Extractor Recess Or Lip	Clean Extractor
	Frozen Extractor	Remove and Clean
	Restricted Movement of Bolt Carrier Group	Remove, Clean and Lube

PROBLEM: WON'T FEED

Problem:	Check For:	What To Do:
Won't feed	Dirty or Corroded Ammo	Clean
	Dirty Magazine	Clean
	Defective Magazine	Replace
	Too Many Rounds in Magazine	Take Out Excess
	Magazine Not Fully Seated	Remove Magazine and Clean Magazine Well
	Barrel not properly installed	Remove and re-attach

PROBLEM: DOUBLE FEED

Problem:	Check For:	What To Do:
Double feed	Defective Magazine	Replace

PROBLEM: WON'T CHAMBER

Problem:	Check For:	What To Do:
Won't chamber	Dirty or Corroded Ammo	Clean

PROBLEM: WON'T UNLOCK

Problem:	Check For:	What To Do:
Won't unlock	Damaged Ammo	Replace
	Carbon In Chamber	Clean
	Dirt, Corrosion or Carbon Build Up in Barrel Locking Lugs	Clean Lugs
	Barrel not properly installed	Remove and re-attach

PROBLEM: SHORT RECOIL

Problem:	Check For:	What To Do:
Short recoil	Piston Binding in Gas Block	Clean Gas Block
	Alignment of Guide Block	Re-align and tighten
	Broken Gas Piston Spring	Replace part
	Properly inserted Action Assembly Spring	Realign Action Assembly Spring
	Proper Setting of Gas Regulator	Set Correctly for Unsuppressed or Suppressed fire
	Bent Gas Piston	Replace part

PROBLEM: BOLT FAILS TO LOCK AFTER LAST ROUND

Problem:	Check For:	What To Do:
Bolt fails to lock after last round	Faulty Magazine	Replace
	Proper Setting of Gas Regulator	Set Correctly for Unsuppressed or Suppressed fire

PROBLEM: SELECTOR LEVER BINDS

Problem:	Check For:	What To Do:
Selector level binds	Dirt or Sand Under Trigger	Clean
	Proper Assembly	Remove and Re-Assemble

PROBLEM: SELECTOR LEVER SPINS FREELY

Problem:	Check For:	What To Do:
Selector lever spins freely	Selector Lever Detent Plate Engagement to Hammer Spring	See Qualified Gunsmith

PROBLEM: BOLT CARRIER "HUNG UP"

Problem:	Check For:	What To Do:
Bolt carrier "hung up"	Double Feed	Remedial Action
	Bound Gas Piston	Clean, Check for Guide Block Alignment

MAINTENANCE IN EXTREME WEATHER...

EXTREME COLD: Clean and lubricate Firearm in a warm room with Firearm at room temperature. Do not lay a warm Firearm directly on snow or ice. Moving Firearm from cold into warmth will cause condensation which could keep Firearm from functioning.

HOT WET CLIMATES: Clean and lube Firearm more frequently in moist climates. Inspect hidden surfaces of Bolt and Carrier Assembly, Upper Receiver, and Chamber/Barrel Extension (Locking Lugs), and Lower Receiver for rust or corrosion. Also pay close attention to the Spring Loaded Detents on the Firearm. Wipe off any hand/finger prints on the Firearm as they can accelerate the onset of rust or corrosion.

HOT, DRY CLIMATES: Take extra care with cleaning and lubrication as rifle will be exposed to blowing sand and fine dust, and extreme temperature shifts (hot in the daytime, freezing at night). Corrosion is less likely to form on metal parts in a dry climate. Firearm should not require any lubrication.

HEAVY RAIN: DO NOT FIRE THE FIREARM IF WATER IS PRESENT IN THE BARREL: Excess pressure can cause the Firearm to explode.

ALWAYS drain any water from Barrel prior to firing. Dry the Bore with a Swab and Cleaning Rod if wet.

PARTS AND ACCESSORIES...

There are a multitude of ways for the Bushmaster ACR to be upgraded or customized for your specific use. A variety of barrel lengths, profiles, caliber conversion kits, alternate stocks, hand guards, and control parts are available. For a complete listing of replacement parts and accessories please refer to the Bushmaster Parts & Accessories Catalog or go online at www.bushmaster.com/acr.

To place an order go online or call 1-800-998-7928 to talk with a Customer Service Representative.

Only authorized Bushmaster parts and accessories are recommended for use with your ACR.

COMPONENT VARIATIONS...

This manual is intended to instruct the Bushmaster ACR Operator in all necessary aspects of Maintenance, Disassembly, Reassembly, Operation and Troubleshooting particular to this firearm.

Within the Bushmaster ACR line of products there can be infinite variations of Barrel Length and Type, Stock Type, Lower Receivers, Hand Guards and Sights.

COMPONENT VARIATIONS...

The Bushmaster ACR you own, or are using, may vary in appearance from the photographs and illustrations in this Manual, but the concepts, procedures and practices recommended in this Manual are universal to the Bushmaster ACR.

LIMITED ONE YEAR WARRANTY...

Bushmaster Firearms are warranted to be free from defects in materials and workmanship. Any such defect of which Bushmaster Firearms International, LLC is given written notice, as provided below, within one year and ten days from the date of first purchase by a customer will be remedied by Bushmaster Firearms International, LLC. This warranty is granted by **Bushmaster Firearms International, LLC, P.O. Box 1479, 999 Roosevelt Trail, Windham, ME 04062**.

To initiate a Warranty claim, call Bushmaster Customer Service (toll free: 8:30 AM to 7:00 PM E.S.T. - Monday thru Friday - 1-800-883-6229) to get a "Return Merchandise Authorization" (RMA) number. Warranty claims should state (in writing) the model and serial number of the firearm concerned, a description of the difficulty experienced, and the date of purchase. The firearm concerned should be shipped (transportation charges prepaid), to the **Warranty Service Department, Bushmaster Firearms International, LLC, 999 Roosevelt Trail, Windham, ME 04062**. Firearm shipment should be insured by the owner, as **Bushmaster Firearms International, LLC will accept no responsibility for loss or damage in transit**.

Shipping and insurance charges for the return of a firearm to its owner will be paid by Bushmaster Firearms International, LLC if the related claim is a proper claim for warranty work.

LIMITED ONE YEAR WARRANTY...

Under no circumstances shall Bushmaster Firearms International, LLC be responsible for incidental or consequential damages with respect to economic loss or injury to property, whether as a result of express or implied warranty, negligence or otherwise. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation may not apply to you. Bushmaster Firearms International, LLC will not be responsible for the results of careless handling, unauthorized adjustments, defective, low quality, reloaded, or improper ammunition, corrosion, neglect, ordinary wear and tear, or unreasonable use. Furthermore, the liability of Bushmaster Firearms International, LLC under this warranty shall be limited solely to the obligation to repair or replace the firearm, and to pay transportation and insurance charges for return of the firearm to owner.

NOTE: Handguns and long guns are classified as FIREARMS or DANGEROUS WEAPONS. Guns are surrendered by Bushmaster Firearms International, LLC with the express understanding that it assumes no responsibility for resale handling under local laws and regulations.

PLEASE PRACTICE SAFE FIREARMS HANDLING!

WARNING: ***IF THIS FIREARM IS CARELESSLY OR IMPROPERLY HANDLED, UNINTENTIONAL DISCHARGE COULD RESULT AND COULD CAUSE PERSONAL INJURY, DEATH, OR DAMAGE TO PROPERTY.***

CAUTION: ***CAREFULLY READ THIS INSTRUCTION MANUAL PRIOR TO LOADING AND FIRING THIS FIREARM. FOLLOW ALL INSTRUCTIONS ON THE PROPER HANDLING AND SAFE USE OF THIS FIREARM - LIVES MAY DEPEND ON IT!***

CAUTION: ***USE ONLY CLEAN, DRY, HIGH QUALITY COMMERCIALLY MANUFACTURED AMMUNITION IN GOOD CONDITION*** *which is appropriate to the 5.56mm NATO/223 Remington caliber of your firearm. Bushmaster does not recommend the use of remanufactured or hand loaded ammunition because it may damage your rifle.*

WARNING: ***THIS FIREARM COULD CHAMBER A ROUND*** *if it is dropped or jarred with a loaded magazine in place - either with the Bolt Carrier Assembly locked to the rear, or in its forward position.*

A SAFETY NOTE REGARDING LEAD... *Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to cause birth defects, reproductive harm, and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.*

This Bushmaster Operating and Safety Instruction Manual should always be kept with your Bushmaster Firearm, and in case of sale or transfer, should be passed on to subsequent owners.

Model: _____
Serial Number: _____
Sold To: _____
Date Sold: _____

NOTES

NOTES

Bushmaster Firearms International, LLC
999 Roosevelt Trail • P.O. Box 1479 • Windham, ME 04062

www.bushmaster.com

For more product information, visit www.bushmaster.com/signin

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ISO 9001:2000 IQC Institute of Quality & Control Certified Quality System

BFI-MAN-ACR